DH-PTZ85448-HNF-WA

4MP 48x Starlight IR WizMind Network Positioning System

WizMind

· 1/1.8" 4Megapixel STARVIS™ CMOS
· Powerful 48x optical zoom
· Starlight technology
· Max. 25/30fps@4M
· IR distance up to 400 m
· Deep-learning-based auto tracking and perimeter protection
· IP67

H.265	WDR	0.005Lux	IP67	ICR D/N	Metadata
False Alarm Filter	Blacklist Alarm	Human Capture			

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

System Overview

Dahua PTZ WizMind network camera adopts advanced CNN deep learning algorithms to support Perimeter Protection with high accuracy. This camera possess wide monitoring range and PFA algorithm that can always present a clear, focused image while zooming. The camera has very excellent low light performance due to adopting the latest starlight technology. The camera is equipped with smooth control, high quality image and good protection, which make it meet most of the requirements of video surveillance applications.

Functions

Perimeter Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.
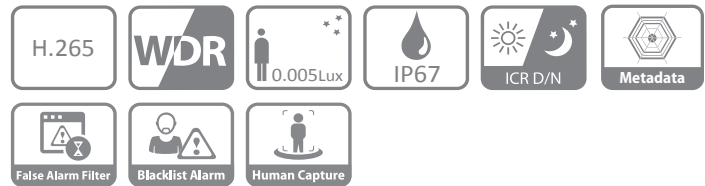
Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.001 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection

The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

ONVIF

Technical Specification

Camera

Image Sensor	1/1.8" STARVIS™ CMOS
Pixel	4MP
Max. Resolution	2560 (H)×1440 (V)
ROM	8GB
RAM	4GB
Electronic Shutter Speed	1/1–1/100000s
Scanning System	Progressive Scanning
Min. Illumination	Color: 0.001Lux@F1.4 B/W: 0.0001Lux@F1.4 0Lux (IR light on)
Illumination Distance	400m(1312.34ft)
Illuminator On/Off Control	Zoom Prio/Manual/SmartIR
Illuminator Number	8
Wiper	Support

Lens

Focal Length	6.25mm–300mm
Max. Aperture	F1.4–F4.5
Field of View	H: 1.8°–62.4°; V: 1.0°–36.6°; D: 2.0°–69.8°
Optical Zoom	48x
Focus Control	Auto/Semi–Auto/Manual
Close Focus Distance	0.5m – 2m (1.64 ft–6.56 ft)
Iris Control	Auto

DORI Distance	Detect	Observe	Recognize	Identify
	3531 m (11584.6ft)	1412 m (4632.5 ft)	706 m (2316.3 ft)	353 m (1158.1ft)

PTZ

Pan/Tilt Range	Pan: 0°–360°; Tilt: -90°–45°
Manual Control Speed	Pan: 0.1°–160°/s; Tilt: 0.1°–60°/s
Preset Speed	Pan: 160°/s; Tilt:60°/s
Presets	300
Tour	8(up to 32 preset per tour)
Pattern	5
Scan	5
Speed Adjustment	Support
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D(Auto recognition)

Artificial Intelligence

Video Metadata	Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction.
Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
Auto Tracking	Support

General Intelligence

Event Trigger	Motion detection, video tampering, scene changing, network disconnection, IP address conflict, illegal access, and storage anomaly
IVS	Object abandoned/missing

Video

Compression	H.265/H.264H/H.264B/H.264/MJPEG(Sub Stream)
Streaming Capability	3 Streams
Resolution	4M (2560×1440); 3M (2048×1536); 1080P (1920×1080); (1.3M)1280×960; 720P (1280×720); D1 (704× 576); CIF (352×288)
Frame Rate	Main stream: 4M/3M(1–25/30fps), 1080P/1.3M/720P(1–25/30fps) Sub stream 1: D1/CIF(1–25/30fps) Sub stream 2: 1080P/1.3M/720P(1–25/30fps), D1/CIF(1–25/30fps)
Bit Rate Control	Variable/Constant
Bit Rate	H.264: 3072 Kbps–15104 Kbps H.265: 1280 Kbps–9216 Kbps
Day/Night	Support
BLC	Support
WDR	120dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural/Street lamp
Gain Control	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Electronic Image Stabilization (EIS)	Support
Defog	support
Digital Zoom	16x
Flip	0°/180°
Privacy Masking	Up to 24 areas

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014

Audio

Compression	G.711A; G.711Mu; G.726; AAC; G.722.1; G.729; PCM; MPEG2-Layer2

Port

Audio Input	1
Audio Output	1

Alarm I/O	7/2
Analog Output	1 BNC
RS-485	1

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMPv1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE
Interoperability	ONVIF Profile S&G&T; CGI
Streaming Method	Unicast/Multicast
User/Host	20 (Total bandwidth 64M)
Storage	FTP; Micro SD card (256G)
Browser	IE7 and newer versions Chrome 42 and older versions Firefox 52 and older versions Safari
Management Software	Smart Player; Smart PSS; DSS; Easy4ip
Mobile Phone	IOS/Android/Windows Phone

Power

Power Supply	DC36V/2.23A ± 25%
Power Consumption	28.7W 61.6W (PTZ rotating, illuminator on, wiper on)

Environment

Operating Temperature	-40°C to -70°C (-40°F to +158°F)
Operating Humidity	≤95% RH
Protection	IP67; TVS 6000V lightning protection; surge protection

Structure

Dimensions	210.7 mm × 399.3 mm × 517.0 mm (8.30" × 15.72" × 20.35")
Net Weight	14.9 kg (32.85 lb)
Gross Weight	21.4 kg (47.18 lb)

Ordering Information

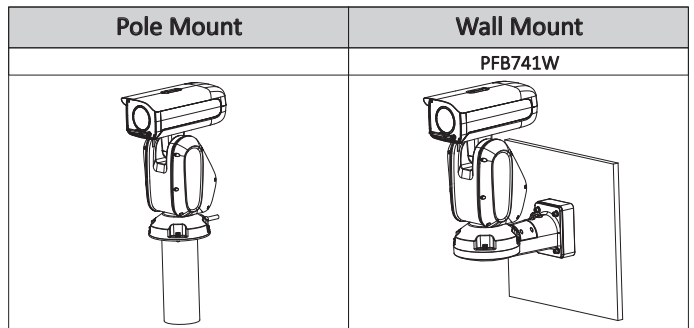| Type	Model	Description
4MP WizMind Positioning System	DH-PTZ85448-HNF-WA	4MP 48x Starlight IR WizMind Network Positioning System, WDR, PAL
	DH-PTZ85448N-HNF-WA	4MP 48x Starlight IR WizMind Network Positioning System, WDR, NTSC
	PTZ85448-HNF-WA	4MP 48x Starlight IR WizMind Network Positioning System, WDR, PAL
	PTZ85448N-HNF-WA	4MP 48x Starlight IR WizMind Network Positioning System, WDR, NTSC

Accessories	DH-PFB741W	Bracket + Junction Box
	E080-1A360223B3	Power Adapter

Accessories

Included:

DC36V/2.23A
Power Adapter

Optional:

DH-PFB741W
Bracket + Junction Box

Pole Mount	Wall Mount
	PFB741W

Dimensions (mm[inch])

210.7[8.30]   399.3[15.72]   517.0[20.35]

200.5[7.89]

4-Ø9.0[0.35]EQS   Ø206.0[8.11]

Ø188.0[7.40]